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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/087,161

02/27/2002

Eric H. Erickson JR.

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02/27/2004

USDA-ARS-OFFICE OF TECHNOLOGY TRANSFER
PATENT ADVISORS OFFICE
WESTERN REGIONAL RESEARCH CENTER
800 BUCHANAN ST
ALBANY, CA 94710

EXAMINER

PAK, JOHN D

ART UNIT

PAPER NUMBER

1616

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,161

Applicant(s)

ERICKSON ET AL.

Examiner

JOHN D PAK

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-14 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/1/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claims 1-14 and 27-31 are pending in this application.

Claims 8-14 are allowed.

Upon further review applicant is advised to eliminate the use of "such as" by using alternative claim language or structure. The phrase "such as" is problematic in that it is not clear whether it operates as a limiting or exemplary feature. See claims 1 and 7.

Applicant is advised that all claim recited compounds have been searched with respect to the presently pending method claims.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7 and 27-31 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for disrupting neural or other physiological functions to **inhibit** essential mite functions or reproduction, does not reasonably provide enablement for **preventing** essential mite functions or reproduction. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The basis for this ground of rejection is in the claim scope "to prevent essential mite functions or reproduction." See independent claims 1 and 7. The term "prevent" encompasses a definition, "make impossible by prior action." It is this scope that is not

enabled. The nature of the invention is the control of parasitic mites of honeybees. Parasitic mites are very difficult to control, as evidenced by the current state of the honeybee industry due to mite infestation problems. The level of one of ordinary skill is high, as honeybees must be kept alive while controlling the parasites or other pests. The level of unpredictability in the art is quite high, as evidenced by the widespread mite problems and susceptibility of the bees to many pesticides. Although applicant has provided sufficient direction and working examples for controlling mites, it cannot be said that the full scope of "prevent" has been disclosed. As a reminder, it is the full scope of "prevent," which includes making essential mite functions or reproduction impossible with no limit as to duration and no allowance for even a small level of survival, that is the basis for this ground of rejection. Therefore, given these factors, the quantity of experimentation needed to use the invention as claimed, i.e. to prevent essential mite functions or reproduction, would be undue. Consequently, the claims are not enabled to the extent that they read on preventing essential mite functions or reproduction.

Previous indication of allowability of claim 7 is withdrawn upon reconsideration of the above issues.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1616

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Polyakov et al. (US 4,299,816).

Polyakov et al. explicitly disclose a method of controlling ectoparasites of bees such as *Varroa jacobsoni* by applying 0.0006-0.167 wt% of a carbamic ester pesticide in combination acetone in balance amount (column 2, lines 9-13, 28-30, 34-58). Apiary and productivity disclosure convey honeybees (column 2, lines 66; column 3, lines 1-5). See Examples 1-3 on columns 4-5. Application inside the beehives is taught (column 3, lines 8-17). Slow release is taught from the evaporation of the acetone in 30 minutes and long-term suspension for better contact (column 3, lines 61-66). 98-99.5% efficacy, as well as ovicidal activity is disclosed (column 3, lines 33-50). The claims are thereby anticipated.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polyakov et al.

Polyakov et al. explicitly disclose a method of controlling ectoparasites of bees such as *Varroa jacobsoni* by applying 0.0006-0.167 wt% of a carbamic ester pesticide in combination acetone in balance amount (column 2, lines 9-13, 28-30, 34-58). Apiary indicates honeybees (column 3, lines 1-5). See Examples 1-3 on columns 4-5. Application inside the beehives is taught (column 3, lines 8-17). Slow release is taught from the evaporation of the acetone in 30 minutes and long-term suspension for better contact (column 3, lines 61-66). Spring treatment followed by summer and autumn treatments is taught (column 2, lines 64-67 and column 3, lines 1-5). 98-99.5% efficacy, as well as ovicidal activity is disclosed (column 3, lines 33-50).

While the cited reference does not expressly disclose in verbatim language exposing parasitic mites for one or more brood cycles such as two or more brood cycles, such feature is fairly suggested from the repeated applications of the pesticide throughout the season and the motivation to maintain control of persistent mite infestation.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly suggested by the teachings of the cited reference.

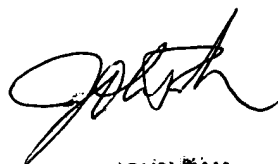
Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620**,

effective February 3, 2004. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Thurman Page, can be reached on (571)272-0602, effective February 3, 2004.

The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.



JOHN PAK
PRIMARY EXAMINER
GROUP 1000